

**HIGH QUALITY AND HIGH PERFORMANCE THREE-DIMENSIONAL GRAPHICS  
ARCHITECTURE FOR PORTABLE HANDHELD DEVICES**

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ABSTRACT OF THE DISCLOSURE

10 A high quality and performance 3D graphics architecture  
suitable for portable handheld devices is provided. The 3D  
graphics architecture incorporates a module to classify  
polygons by size and other characteristics. In general,  
small and well-behaved triangles can be processed using  
"lower-precision" units with power efficient circuitry  
15 without any quality and performance sacrifice (e.g.,  
realism, resolution, etc.). By classifying the primitives  
and selecting the more power-efficient processing unit to  
process the primitive, power consumption can be reduced  
without quality and performance sacrifice.